

FIRST RECORD OF CTENOPHORE *COELOPLANA* (*BENTHOPLANA*) *METEORIS* (THIEL, 1968) FROM AUSTRALIA. *Memoirs of the Queensland Museum* 33(1): 16. 1993:- There are only two records of benthic ctenophores (Ctenophora: Platycerida) from Australian waters: *Coeolopana* sp. and *C. cf. willeyi* Abbott, 1907 (Stephenson et al., 1931; Smith & Plant, 1976). I record here a third species, *Coeolopana* (*Benthoplana*) *meteoris* (Thiel, 1968), previously known from Somalia, east Africa (08°26.2'N, 50°20.2'E) (Thiel, 1968) and NW Madagascar (13°24'40-13°35'15"S, 47°48'50-48°19'10"E) (Fricke & Planté, 1971). The specimens were collected while diving at 12-13m depth in Pioneer Bay, Orpheus Island, NEQ (18°36'S, 146°29'E). Two specimens were preserved (Queensland Museum G35888). The following description is based primarily on living animals in which taxonomic features are clearer.

The animals were living free on terrigenous muddy-sand. They had a characteristic body profile with erect tentacular horns (see Thiel, 1968, figs 1,2; Fricke & Planté, 1971, pl.1). The aboral surface was covered by a yellowish-white reticulate pattern. Fine red pigment occurred on the aboral surface above the meridional canals, around the tentacle sheaths and marginal ampoules. One live specimen, when expanded on glass, measured 36×31mm. The preserved specimens measure 8×10 and 10×16mm.

The apical organ had four polar fields, which were multiply branched (see Fricke & Planté, 1971, fig. 3). The fields did not contract, however, as observed by those authors.

Tentacles were typical with a primary axis and tentilla. They extended from beneath the tip of the tentacular horn, i.e., the opening of the tentacle sheath was oral.

The preserved specimens are folded along the tentacular axis; a faint crease runs along the oral surface from the mouth to the base of the tentacular horns, but no oral groove or oral lappets were seen.

The following description of the gastrovascular system uses the terms of Thiel (1968). Radial canals gave rise on either side to 2 pairs of adradial canals that led directly to the meridional canals. There were 3-4 digitate to trifid aboral papillae over each of the meridional canals. A pair of subparallel tentacular canals ran on either side of the tentacle sheath, arising beyond the distal adradial canals. The peripheral gastrovascular system branched dichotomously to form a complex network, best developed on the oral surface.

Cydippid larvae were found next to the meridional canals (the specimens were collected in January). Peripheral sacs were each connected by a transparent tube to a marginal pore. These seem to be testicular ampoules (see Fricke & Planté, 1971).

Body profile, marginal position of tentacle sheath openings and variable aboral papillae are consistent with *Vallicula* Rankin, 1956 and some species of *Coeolopana* Kowalevsky, 1880 as defined by Fricke (1970), Harbison & Madin (1982) and Rankin (1956). However, I did not see the oral lappets, oral groove, spherical vesicle of the gastrovascular system or additional cross-piece of the tentacular sheath that characterize *Vallicula*.

Of the 21 nominal species of *Coeolopana* (Fricke, 1970), three have a gastrovascular system similar to that in my specimens: *C. perrieri* Dawyodoff, 1938, *C. mesnili* Dawyodoff, 1938 and *C. meteoris* Thiel, 1968 (Thiel, 1968; Fricke & Planté, 1971). All were reported as free-living (*C. mesnili* in

the plankton, *C. perrieri* on rocks and seagrass, *C. meteoris* on soft-sediment). The present specimens differ from *C. mesnili* and *C. perrieri* (Dawyodoff; 1938a,b) in body profile, position of openings of the tentacle sheath and testes, colour pattern, structure of the apical organ and aboral papillae. They conform well with *C. meteoris* in (1) the free-living habit on soft-sediment, (2) high body profile with tentacular horns, (3) oral openings of the tentacle sheath, (4) distinctive apical organ with four polar fields, (5) tentacular canals bifurcating beyond the distal adradial canals, (6) colour pattern, (7) complex aboral papillae, and (8) marginal position of ampoules (otherwise known only from *Ctenoplana* (*Diploctena*) *neritica* Fricke & Planté, 1971). This combination of features was so distinctive that Fricke & Planté (1971) created a new subgenus, *Benthoplana*, for *C. meteoris*.

This record considerably extends the range of *C. meteoris*. Fricke & Planté (1971) showed it can be abundant (up to 64/m²). The paucity of published records probably reflects the lack of direct observations in soft-sediment habitat.

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Peter Arnold, Museum of Tropical Queensland, 70-84 Flinders St, Townsville, Queensland 4810, Australia; 15 October, 1992.